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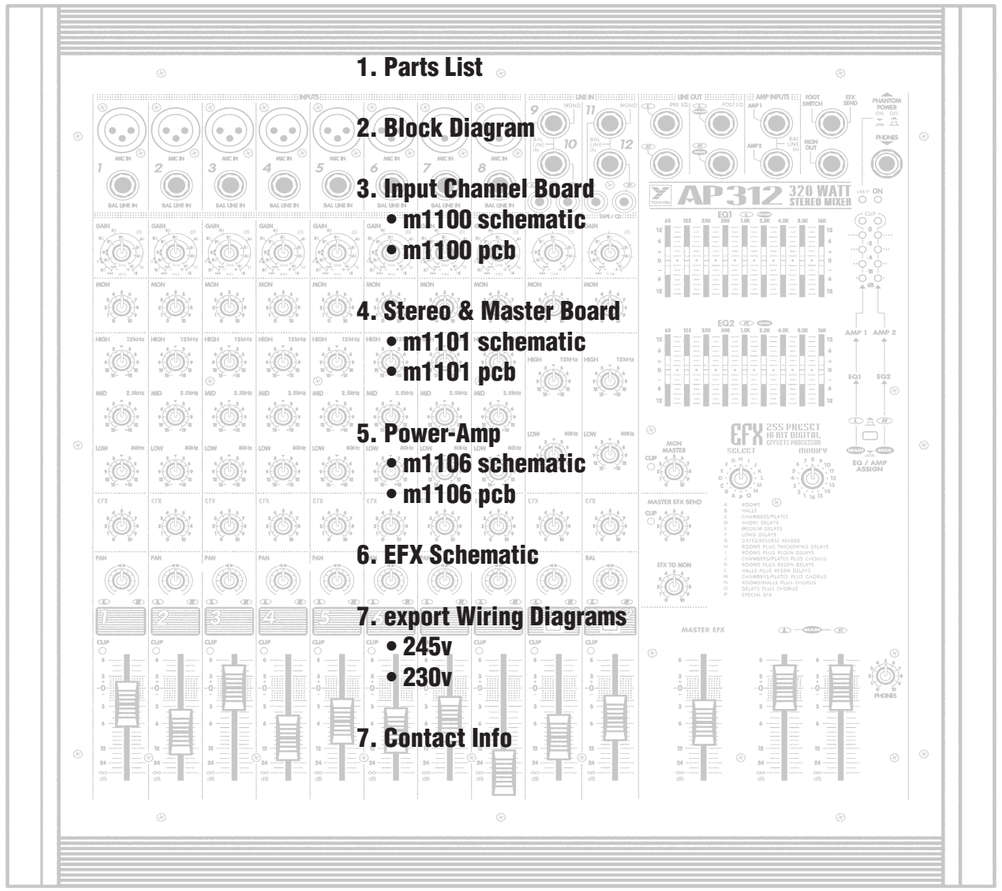
Quality and Innovation Since 1963
Printed in Canada

SERVICE MANUAL

AP312 320 WATT STEREO MIXER



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AP312 Parts List 10/21/99

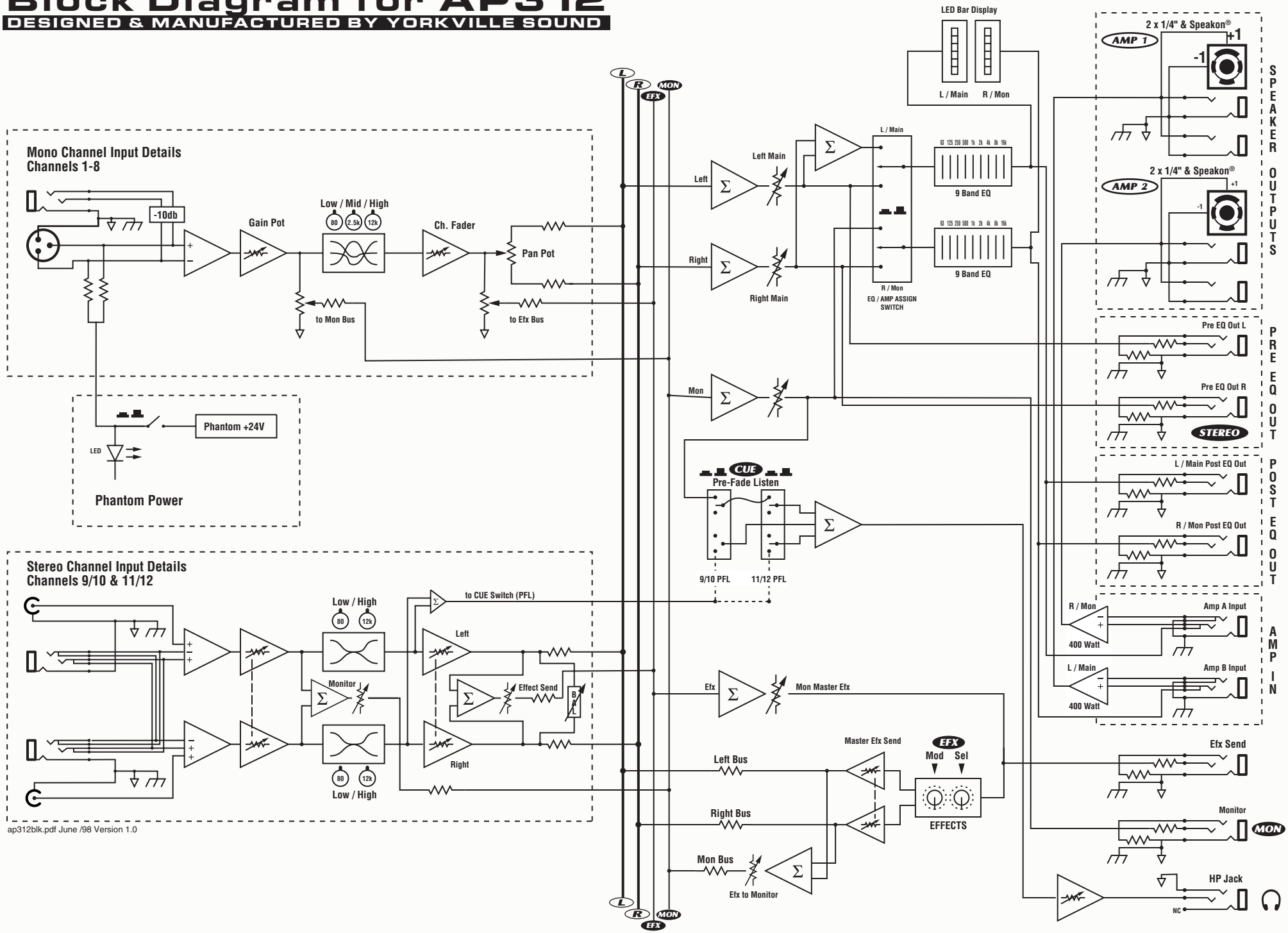
YS #	Description	Qty.	YS #	Description	Qty.	YS #	Description	Qty.
3507	28 PIN X .6" I.C DEEP SOCKET	1	5317	180N 50V 10%CAP T&R BEAD X7R	2	4645	1/8W 220R0 1%FLAME PROOF T&R RES	4
3550	44PIN PLCC SOCKET	1	5233	330N 63V 5%CAP T&R RAD .2"FLM	2	4857	1/4W 220R 5% T&R RES	11
3557	84PIN PLCC SOCKET	1	5240	680N 63V 10%CAP T&R RAD .2"FLM	2	4977	1/4W 220R 5%MINI T&R RES	4
3571	28 PIN X .6" I.C. SOCKET	1	5255	__1U 63V 20%CAP T&R RAD .2"EL	2	4606	1/8W 249R 2%FLAME PROOF T&R RES	24
6994	CRYSTAL CODEC 44PIN PLCC	1	5256	__1U 63V 5%CAP T&R RAD .2"FLM	3	4986	1/4W 270R 5%MINI T&R RES	4
6940	16MHZ CRYSTAL VERT 2-PIN .25"CASE	1	5257	__2U2 63V 20%CAP T&R RAD .2"EL	4	4780	1/8W 274R 1%FLAME PROOF T&R RES	4
5991	RED 3MM LED 1V9 20MA W/STOP T&R	4	5259	__4U7 63V 20%CAP T&R RAD .2"EL	3	5010	1/4W 330RX9 5% 10PIN SIP RES	1
6400	YEL 3MM LED 1V9 6MA HIGHEFF	2	5282	_10U 16V 20%CAP T&R 5X7MM .2"NP	5	4950	1/4W 390R 5% .2"U T&R RES	4
6401	GRN 3MM LED 1V9 6MA HIGHEFF	6	5260	_22U 50V 20%CAP T&R RAD .2"EL	13	4821	1/4W 470R 5% T&R RES	9
6403	ORN 3MM LED 1V7 5MA	15	5631	_22U 50V 20%CAP T&R 5X7MM .2"EL	13	4933	1/4W 470R 5% .2"U T&R RES	4
6408	GRN 3MM LED 1V9 5MA FROSTED	1	5961	_33U 16V 20%CAP T&R RAD .2"NP	41	4980	1/4W 470R 5%MINI T&R RES	12
6425	BAV21 200V 0A25 DIODE T&R	4	5267	100U 25V 20%CAP T&R RAD .2"EL	3	4799	1/4W 562R 1% T&R RES	24
6434	6A2 200V 6A0 DIODE	4	5879	100U 16V 20%CAP T&R 8X7MM .2"EL	26	4922	1/4W 620R 5% .2"U T&R RES	22
6438	1N4004 400V 1A0 DIODE T&R	13	5914	100U 63V 20%CAP BLK 10X13MM EL	4	4873	1/4W 680R 5% T&R RES	2
6825	1N4148 75V 0A45 DIODE T&R	81	5630	330U 25V 20%CAP BLK 10X13MM EL	1	4923	1/4W 680R 5% .2"U T&R RES	5
6733	BAT85 30V 0A2 DIODE SCHTKY T&R	8	5887	2200U 50V 20%CAP BLK 18X27MM EL	1	4924	1/4W 750R 5% .2"U T&R RES	4
6439	1N5225B 3V0 0W5 ZENER 5% T&R	2	5894	3900U 80V 20%CAP BLK 30X40MM ELS	4	4925	1/4W 820R 5% .2"U T&R RES	2
6440	1N750ARL 4V7 0W5 ZENER 5% T&R	4	4581	ROT GRY 18MM 4BIT ENCODER P23	2	5016	1/8W 820R 5%FLAME PROOF T&R RES	2
6436	1N753ARL 6V2 0W5 ZENER 5% T&R	1	4537	_10K B LIN 9MM DETENT P25	26	4892	1/4W 910R 5% T&R RES	2
6450	1N5242B 12V0 0W5 ZENER 5% T&R	1	4566	_10K B LIN 9MM P25	21	4823	1/4W 1K 5% T&R RES	1
6824	1N5246B 16V0 0W5 ZENER 5% T&R	4	4567	_20K 5C R/A 9MM P25	8	4913	1.0W 1K 5% T&R RES	4
6463	1N5251BRL 22V0 0W5 ZENER 5% T&R	1	4570	_20K 5C R/A 12MM STEREO P21	2	4981	1/4W 1K 5%MINI T&R RES	15
6426	1N5254B 27V0 0W5 ZENER 5% T&R	1	4545	_50K LIN 12MM STEREO DETENTP21	4	4996	1/4W 1K070 0.1% *** T&R RES	2
6738	MC7805CT TO220 P 5V0 REG V1	1	4546	_50K B LIN 9MM DETENT P25	8	4585	1/4W 1K2 5%MINI T&R RES	9
6856	NJM7815FA TO220 P 15V0 REG IS V1	1	4568	_50K B LIN 9MM P25	3	4854	1/4W 1K2 5% T&R RES	12
6857	NJM7915FA TO220 N 15V0 REG IS V2	1	4487	_10K 10A AUD 60MM STEREO S01	3	4718	5.0W 1K5 5% BLK RES	4
5101	BC550C TO92 NPN TRAN T&R TB	2	4489	_10K B LIN 60MM S01	8	4824	1/4W 1K5 5% T&R RES	1
5102	BC560C TO92 PNP TRAN T&R TB	19	3996	_20K LIN 30MM DETENT S12	18	4988	1/4W 1K5 5%MINI T&R RES	14
5103	MPSA06 TO92 NPN TRAN T&R TA	6	4488	_50K B LIN 60MM S01	2	5017	1/8W 1K5 5%FLAME PROOF T&R RES	4
5104	MPSA56 TO92 PNP TRAN T&R TA	7	4529	470R TRIM POT	2	4808	1/4W 2K 5% T&R RES	6
5109	MPSA43 TO92 NPN TRAN TA	2	2459	7.0 AMP CIRCUIT BREAKER	1	4946	1/4W 2K 5% .2"U T&R RES	5
5110	MPSA93 TO92 PNP TRAN TA	4	714	1.5 MIL X 36" CLEAR POLY SHEETING	4	6113	1/4W 2K 5%MINI T&R RES	22
5105	MPSA13 TO92 NPN DARL T&R TA	12	3819	___5UH COIL 18AWG R000 AIR CORE	2	4847	1/4W 2K2 5% T&R RES	5
5122	J109 TO92 NCH JFET T&R TC	2	3478	CLIP 205/187X032 18-22AWG DISCO/INS	2	4936	1/4W 2K7 5% .2"U T&R RES	1
6808	MJE15032 TO220 NPN TRAN TE	2	3489	CLIP 250X032 18-22AWG DISCO/INSL	2	4626	1/2W 3K3 5% T&R RES	1
6809	MJE15033 TO220 PNP TRAN TE	2	3490	CLIP 250X032 14-16AWG DISCO/INSL	11	6136	1/4W 3K3 5%MINI T&R RES	3
6913	2N6045 BD649TO220 NPN TRAN DARL TE	1	3529	CLIP 250X032 TN 18-22AWG MALE	1	4793	1/4W 4K590 0.1% *** T&R RES	2
6915	TIP102 TO220 NPN TRAN DARL TE	1	3601	RING TERMINAL 16AWG WIRE & #8 SCREW	2	4827	1/4W 4K7 5% T&R RES	29
6988	MJL21194 TO3P NPN TRAN TK	2	3682	250 MALE PCB TAB BULK CARTRIGE	12	4982	1/4W 4K7 5%MINI T&R RES	18
6991	MJL21193 TO3P PNP TRAN TK	2	3497	1/4" JCK PCB MT VERT ISO	1	6128	1/4W 4K99 1%MINI MF T&R RES	54
6754	NJM072BL IC DUAL OPAMP INLINE	1	3498	1/4" JCK PCB MT HORZ	4	4978	1/4W 6K8 5%MINI T&R RES	6
6798	MC4741CP IC QUAD OP AMP	1	3921	1/4" JCK PCB MT VERT STER RT SWT	21	4801	1/4W 6K98 1% T&R RES	4
6840	MC33078P IC DUAL OP AMP	13	3466	RCA DUAL PCB MT VERT GOLD 24MM	2	4887	1/4W 7K5 5% T&R RES	20
6867	LM339N IC QUAD COMPARATOR	2	6956	SPKON 4C PCB MT HORZ GRY #4	2	4863	1/4W 8K2 5% T&R RES	3
6882	TL072CP IC FET DUAL OP AMP	21	3925	XLR FEML PCB MT VERT 24MM U-CONT	8	4990	1/4W 8K2 5%MINI T&R RES	5
6745	LM13600N IC XCONDUCTANCE AMP	1	3451	EYELET SMALL 0.089 OD PLATED	53	4762	1/4W 9K760 0.1% *** T&R RES	2
6943	74HC374N IC OCTAL DTYPE LATCH	1	2486	1.5 AMP SLO-BLO T&R FUSE	2	4800	1/4W 10K0 1% T&R RES	8
6962	74HC30 IC 8-INPUT NAND GATE	1	3861	FAN 80MM X 80MM 30CFM 12VDC 230MA	1	4829	1/4W 10K 5% T&R RES	17
6981	27C512 PROM IC YORKVILLE 16X16 PRG	1	3692	HEATSINK THERMALOY 6079-PB	1	4940	1/4W 10K 5% .2"U T&R RES	3
6992	1365-102 IC DIGITAL REVERB ASIC	1	3745	DUAL XSISTOR PBL SPRING PLATE ZN	5	4983	1/4W 10K 5%MINI T&R RES	41
6993	1250-101 IC SRAM 32KX8	1	8682	#4 TEFLON WASHER .125ID .281OD .031	2	5011	1/4W _10KX9 2% 10PIN SIP RES	1
6477	100K 5% 1/4W THERMISTOR T&R 0.2	2	3821	HEYCO #1200 STRAIN RELIEF	1	6116	1/4W 10K0 1%MINI MF T&R RES	1
5200	_10P 200V 5%CAP T&R RAD CER.2"NPO	2	3596	36PIN BREAKAWAY .15GOLD .100	0.333	4856	1/4W 12K 5% T&R RES	3
5405	_27P 200V 5%CAP T&R RAD CER.2"NPO	3	3597	12 CIR HDR BOT ENTRY 0.1" GOLD	1	4775	1/4W 14K0 1% T&R RES	2
5203	_47P 100V 2%CAP T&R RAD CER.2"NPO	3	3638	12 CIR CABLE HOLDER .098	3	4979	1/4W 15K 5%MINI T&R RES	8
5408	_47P 100V 10%CAP T&R BEAD NPO	2	5989	4 CIR CABLE HOLDER .098	2	4831	1/4W 18K 5% T&R RES	9
5199	100P 100V 2%CAP T&R RAD CER.2"NPO	4	8800	6-32 KEPS NUT ZINC	5	4954	1/4W 18K 5% .2"U T&R RES	1
5196	150P 100V 2%CAP T&R RAD CER.2"NPO	6	8787	8-32 KEPS NUT ZINC	1	6125	1/4W 18K 5%MINI T&R RES	8
5414	270P 50V 10%CAP T&R BEAD NPO	2	8845	10-32 PEMNUT SS-032-2-Z1	6	6123	1/4W 20K0 1%MINI MF T&R RES	2
5417	330P 50V 10%CAP T&R BEAD NPO	2	8788	1/4-20 KEPS NUT ZINC	1	4832	1/4W 22K 5% T&R RES	4
5206	__1N 400V 5%CAP T&R RAD .2"FLM	14	3866	ELASTOMER PAD TSIL 3 1.2X6.0	3	6129	1/4W 27K 5%MINI T&R RES	2
5273	__1N5 200V 5%CAP T&R RAD CER.2"NPO	31	3580	12 CIR WAFER W/LCK VT 0.1"	1	4840	1/4W 33K 5% T&R RES	7
5274	__2N2 200V 5%CAP T&R RAD CER.2"NPO	16	3818	EMI SUPPRESSION FERRITE BEAD T&R	2	6122	1/4W 33K 5%MINI T&R RES	56
5209	__4N7 250V 5%CAP T&R RAD .2"FLM	2	4597	22AWG STRAN TC WIR JMP	63	4794	1/4W 37K90 0.1% *** T&R RES	2
6451	__4N7 250V 20%CAP BLK 'Y' 10MM AC	1	4599	22AWG SOLID SC WIR T&R JMP	293	4853	1/4W 39K 5% T&R RES	8
5433	__5N6 50V 10%CAP T&R BEAD X7R	2	5299	24AWG SOLID SC WIR RAD JMP	33	4908	1/4W 45K3 1% T&R RES	4
5272	__6N8 100V 5%CAP T&R RAD .2"FLM	8	4719	5.0W 0R18 5% BLK RES	4	4834	1/4W 47K 5% T&R RES	9
5204	_10N 100V 10%CAP T&R RAD .2"FLM	9	4703	2.0W 2R 5% T&R RES	4	6119	1/4W 47K 5%MINI T&R RES	7
5205	_15N 100V 10%CAP T&R RAD .2"FLM	1	4666	1/2W 4R7 5% T&R RES	4	4835	1/4W 56K 5% T&R RES	8
5207	_18N 100V 5%CAP T&R RAD .2"FLM	2	4605	1/8W 10R 5% T&R RES	3	4928	1/4W 56K 5% .2"U T&R RES	2
5210	_22N 100V 10%CAP T&R RAD .2"FLM	9	4610	1/4W 10R 2%FLAME PROOF T&R RES	1	4848	1/4W 62K 5% T&R RES	6
6435	_22N 275V 20%CAP BLK 'X2' 15MM AC	1	4686	1.0W 10R 5%FLAME PROOF T&R RES	4	4836	1/4W 68K 5% T&R RES	2
5222	_33N 100V 10%CAP T&R RAD .2"FLM	5	4930	1/4W 10R 5% .2"U T&R RES	4	4760	1/4W 75K 5% T&R RES	2
5306	_33N 50V 10%CAP T&R BEAD X7R	1	4709	5.0W 22R 5% BLK RES	1	4586	1/4W 82K 5%MINI T&R RES	8
5223	_39N 100V 10%CAP T&R RAD .2"FLM	1	4995	1/4W 33R2 1%FLAME PROOF T&R RES	6	4837	1/4W 82K 5% T&R RES	6
5224	_47N 100V 10%CAP T&R RAD .2"FLM	4	6134	1/4W 47R 5%MINI T&R RES	1	4929	1/4W 82K 5% .2"U T&R RES	4
5226	_68N 100V 5%CAP T&R RAD .2"FLM	12	4608	1/8W 75R 2%FLAME PROOF T&R RES	4	4942	1/4W 100K 5% .2"U T&R RES	4
5228	100N 100V 5%CAP T&R RAD .2"FLM	74	4602	1/8W 100R 5% T&R RES	16	4851	1/4W 120K 5% T&R RES	2
5314	100N 50V 10%CAP T&R BEAD X7R	12	4852	1/4W 100R 5% T&R RES	2	4796	1/4W 180K 5%MINI T&R RES	1
5230	180N 63V 5%CAP T&R RAD .2"FLM	2	4984	1/4W 150R 5%MINI T&R RES	4	4886	1/4W 200K 5% T&R RES	2

AP312 Parts List 10/21/99

YS #	Description	Qty.	YS #	Description	Qty.	YS #	Description	Qty.
4843	1/4W 470K 5% T&R RES	2						
6127	1/4W 470K 5%MINI T&R RES	1						
4844	1/4W 1M 5% T&R RES	1						
4948	1/4W 1M 5% .2"U T&R RES	6						
4845	1/4W 2M2 5% T&R RES	1						
4888	1/4W 4M7 5% T&R RES	9						
4951	1/4W 4M7 5% .2"U T&R RES	4						
4751	1/4W 22M 5% T&R RES	2						
3666	_2" 4C-26AWG RIBBON CABLE 0.1"	2						
3623	17" 4C-26AWG RIBBON CABLE 0.1"	1						
3665	_2" 8C-26AWG RIBBON CABLE 0.1"	1						
3639	1.7"12C-26AWG RIBBON 0.25"S&R 098	1						
3740	15" 12C-26AWG RIB 1 W/LCK HDR 098	1						
9006	20GA SATINCOAT STEEL 4 X 8 SHEET	4						
9020	18GA COLD ROLLED STEEL 4X8 SHEET	5.3						
9150	.081" 48X96 UTILITY ALUMINUM	1.28						
9251	.063" 48X96 5052H32 ALUM VINYL LAMI	3						
9564	HEATSINK (RIDGE) AP812/818/DJM806	0.766						
9583	BLACK 'U' EXTRUSION DIE #943	0.166						
8842	#4 X 5/16 PAN QUAD TYPE A JS500 BLK	18						
8832	6-32 X 1/4 PAN PH TAPTITE JS500	8						
8807	6-32 X 5/16 PAN PH MS JS500	18						
8801	6-32 X 3/8 PAN PH TAPTITE JS500	9						
8829	6-32 X 3/8 FLAT PH TAPTITE BO#4 HEA	24						
8828	6-32 X 3/4 PAN PH TAPTITE JS500	6						
8823	6-32 X 1 PAN PH TAPTITE JS500	2						
8803	8-32 X 3/8 PAN QUAD TAPTITE JS500	4						
8999	8-32 X 5/8 PAN PH TAPTITE JS500	10						
8785	#8 X 3/4 OVAL PH TYPE A JS500 BLACK	4						
8815	8-32 X 3/4 PAN PH TAPTITE JS500	3						
8874	8-32 X 1" PAN PHIL TAPTITE JS500	8						
8749	10-32 X 1/2 QDX PH TAPTITE JS500	4						
8753	#10 X 1/2 PAN PH TYPE A ZINC	6						
8821	10-16 X 1 3/32 TYPE B HEX W/SLOT BL	4						
8765	1/4-20 X 2 1/2 HEX HD MS JS500 BLK	1						
8607	3/16 NYLON SPACER OD 1/8 X ID .063	8						
3751	SNAP IN 5/16 SPACER RICHCO	11						
3744	SNAP IN .375 SPACER RICHCO	7						
3739	CUSTOM .4 LED SPACER	24						
3865	1/2 PLASTIC HEX SPACER #6	18						
8657	6-32 X 3/8" HEX SPACER ALUMINUM	1						
8482	3/8 1D FLAT WASHER	21						
8818	3/4 OD X 5/16 ID X .08 THICK WASHER	2						
3511	#6 FLAT WASHER NYLON	18						
8491	#10 SPLIT LOCK WASHER BO	4						
3436	DPDT PUSH SW PCMT H BREAK B4 MAKE	1						
3437	DPDT PUSH SW PCMT V MINI UGT 3522	3						
3698	SPST ROKR SW QUIK 180" AC PWR BL/BL	1						
5635	1000U 35V 20%CAP RADIAL ELECT BUL	1						
8552	AIR VENT, AP MIXERS	1						
8553	BUMPER,AP812 SERIES MIXER 17.250"	2						
8557	GABLE, 3-HOLE AP MIXERS STYLE 2	2						
8581	CUSTOM PBL TRANSISTOR SPACER	5						
1253	AP312 POWER TRANSFORMER T'RD	1						

Block Diagram for AP312

DESIGNED & MANUFACTURED BY YORKVILLE SOUND



MASTER SECTION

SYSKEY:FLAT	SCH SHEETS: 1 of 3
DATE: NOV/15/99	MODELS: AP-312
NAME: AP312MIX.SCH	PCB#: M1100-M1101
	TITLE: MIXER/EQ

REF	FUNCTION	PART#	KNOB	AS OF
R1:R6	MAS_REV_SND	#4568	#8393	JAN/2000
L2 P5	EFX_TO_MON	#4566	#8393	D
L3 P4	EFX_RETURN	#4567	#8393	D
L4 P3	MAIN_L	#4488	#8680	D
L5 P2	MAIN_R	#4488	#8680	D
L6 P1	MONITOR	#4488	#8680	D
L7 P11	HEADPHONE	#4566	#8682	D
L8 P12	SELECT	#4561	#8397	D
L9 P13	MVOLFF	#4561	#8397	D
L10 P14	N	#4561	K	D
L11 P15	P	#4561	K	D
L12 P16				D

ALL UNMARKED DIODES ARE 1N4148

TO POWER AMP

TO DIGITAL EFX

HEADPHONE

MONITOR CUE_CH9+10

MONITOR CUE_CH11+12

EQ1

EQ2

CHANNELS 2 TO 8 SIMILAR TO CHANNEL 1

CHANNELS 9 TO 12 SIMILAR TO CHANNELS 9 AND 10

BY PASS CAPS

STEREO CHANNELS SECTION

M1100/1101.PCB POT LIST

MODEL(S):- AP312		
REF	FUNCTION	PART#
L1	CHAN_GAIN	#4566
P2A	CHAN_MON_SND	#8394
P2B	CHAN_EFX_SND	#8394
P3A	CHAN_HIGH	#8395
P3B	CHAN_LOW	#8395
P4A	CHAN_EFX_SND	#4566
P4B	CHAN_VOLUME	#8396
P5A	PAN	#8397
P5B	CHAN_MON	#4489
P10 P18	MON_MASTER	#4568
P3		#8394

KNOB	AS OF
#8394	JAN/2000
-	-
-	-
#8395	-
#8395	-
#4566	-
#8396	-
#8397	-
#4489	-
#8680 DB	-
#8394	-

M1100IN.SCH DATABASE HISTORY

MODEL(S):- AP312		
#	DATE	DESCRIPTION OF CHANGE
1	MAY/07/97	1. ECO
2	JUN/07/97	ADD 150R(R112A,B)TO EQ
3	NOV/15/99	EV#6140_HEADPHONE_VK_CHANGED
4		
5		
6		
7		
8		
9		
10		

VER#	BOM
1.60	N
V	N
V	N
V	N
V	N
V	N
V	N
V	N
V	N
V	N

U:\AP312MIX.PRN

P:\1100DRW.PRN

BLANK SIZE=16.000" X 7.500"

Wave Solder

ASSEMBLY M1100-3.00
PCB MECH M1100-3.00

M1100 VER:3.00

GAIN

HIGH

MID

LOW

EFX

PAN

MON

CHANNEL_6

CHANNEL_5

CHANNEL_4

CHANNEL_3

CHANNEL_2

CHANNEL_1

TLO72

INSTALL MX1 HERE
FOR M1100A
ONLY

SOLDERSIDE M1100-3.00

VCD

M1100.PCB_DATABASE_HISTORY

MODEL(S):- AP-812/818

#	DATE	VER#	DESCRIPTION OF CHANGE
1	JAN/11/97	P1.0	DEL R38A,R30A
2	MAR/03/97	P2.0	R32A->F TO 4K99
3	MAY/05/97	1.00	VALUE CHANGES SEE LIST
4	MAY/06/97	2.00	ADDED C2,C16A-F,CI7A-F_MOVED_JMPR
5	.	.	AWAY FROM P7A-F
6	AUG/31/99	2.10	XLR #3454->3925
7	JUL/10/02	3.00	PC#6554_#3921_JAX->SLOTS
8	D	V	N
9	D	V	N
10	D	V	N
11	D	V	N

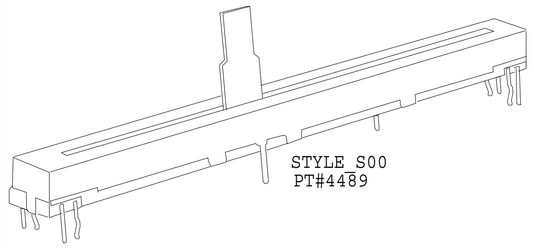
M1100.PCB_POT_LIST

MODEL(S):- AP312/812

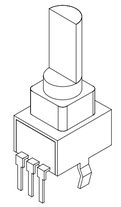
REF	FUNCTION	PART#	KNOB	AS_OF
P1A-F	GAIN	#4567	#8392	JAN/2000
P2A-F	MONITOR	#4566	#8394	.
P5A-F	HIGH	#4537	#8395	.
P4A-F	MID	#4537	#8395	.
P3A-F	LOW	#4546	#8395	.
P6A-F	EFFECTS	#4566	#8393	.
P7A-F	PAN	#4537	#8392	.
P8A-F	VOLUME	#4489	#8680	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.

PRODUCTION NOTES

1 INSTALL MX1 FOR M1100A ONLY



STYLE S00
PT#4489

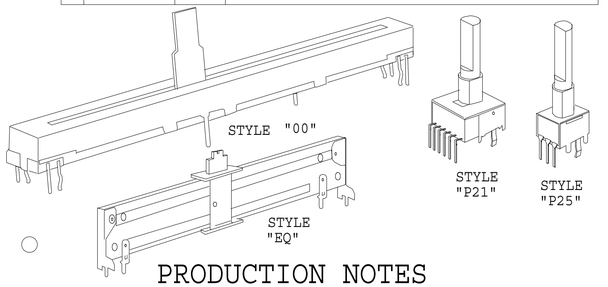


STYLE
"P25"

ASSEMBLY M1101-7.00
PCB MECH M1101-7.00

R5FX MUST BE A MINI

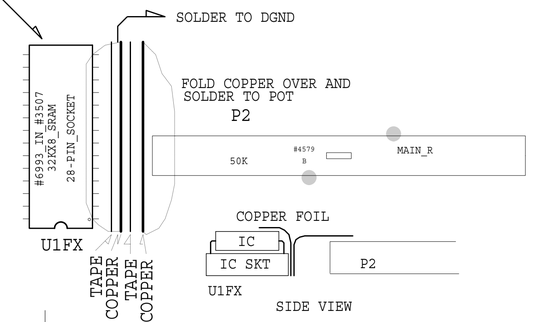
M1101.PCB_DATABASE_HISTORY			
MODEL(S):- AP-812/818			
#	DATE	VER#	DESCRIPTION OF CHANGE
1	MAY/06/97	V1.5	PC#5367
2	D	V	- R92,R91 220R TO 680R
3	D	V	- R83,R88 240K TO 1M
4	D	V	- R86,R87 47K TO 200K
5	MAY/06/97	V1.5	PC#5368
6	D	V	- CORRECT Q7FX,Q6FX TO AGREE WITH SCHEMATIC
7	MAY/06/97	V1.5	PC#5370
8	.	.	- CHANGE R21I,J,K,L TO 47K
9	.	.	- CHANGE C2,C6 TO 150P
10	.	.	- TACK ON 1K5 IN SERIES WITH C1.C4
11	.	.	- TACK ON 150R IN SERIES WITH EQ.BUSS
1	.	.	- TACK ON 2N2 ACROSS OUT SIDE LEGS OF P5G,H
2	.	.	.
3	.	V2.00	.NOTE:IMPLEMENT ABOVE PC'S ON TAPE-UP
4	.	.	#5371 MOVE TRACE OF C5H,C1 TO AGREE WITH
5	.	.	SCHEMATIC
6	MAY/07/97	.	- ADD 1N5 FROM R3G TO IG GROUND
7	JUN/23/97	3.00	PC#5426 ADD C26FX,27FX,28FX,29FX
8	AUG/18/97	.	RELOCATE PARTS 4 BETTER INSERTION
9	AUG/31/99	3.10	XLR #3454 ->#3925
10	OCT/25/99	4.00	PC#6140 HD-PH JK #3497->#3921
11	JAN/27/00	5.00	FIX MISSING TRACE AT U6FX_PIN_36
12	MAR/02/00	6.00	FIX ERROR AT HD-PHN-JK
13	OCT/17/00	6.10	PC#6292 R16FX 680R->470R DEL C5FX
14	JUL/10/02	7.00	PC#6554 #3921-JAX-HOLES->SLOTS
15	NOV/23/04	.	PC#6771 #3571->#3507 SKT FOR #6993 SRAM
16	D	V	N



PRODUCTION NOTES

PCBSA DEPT.

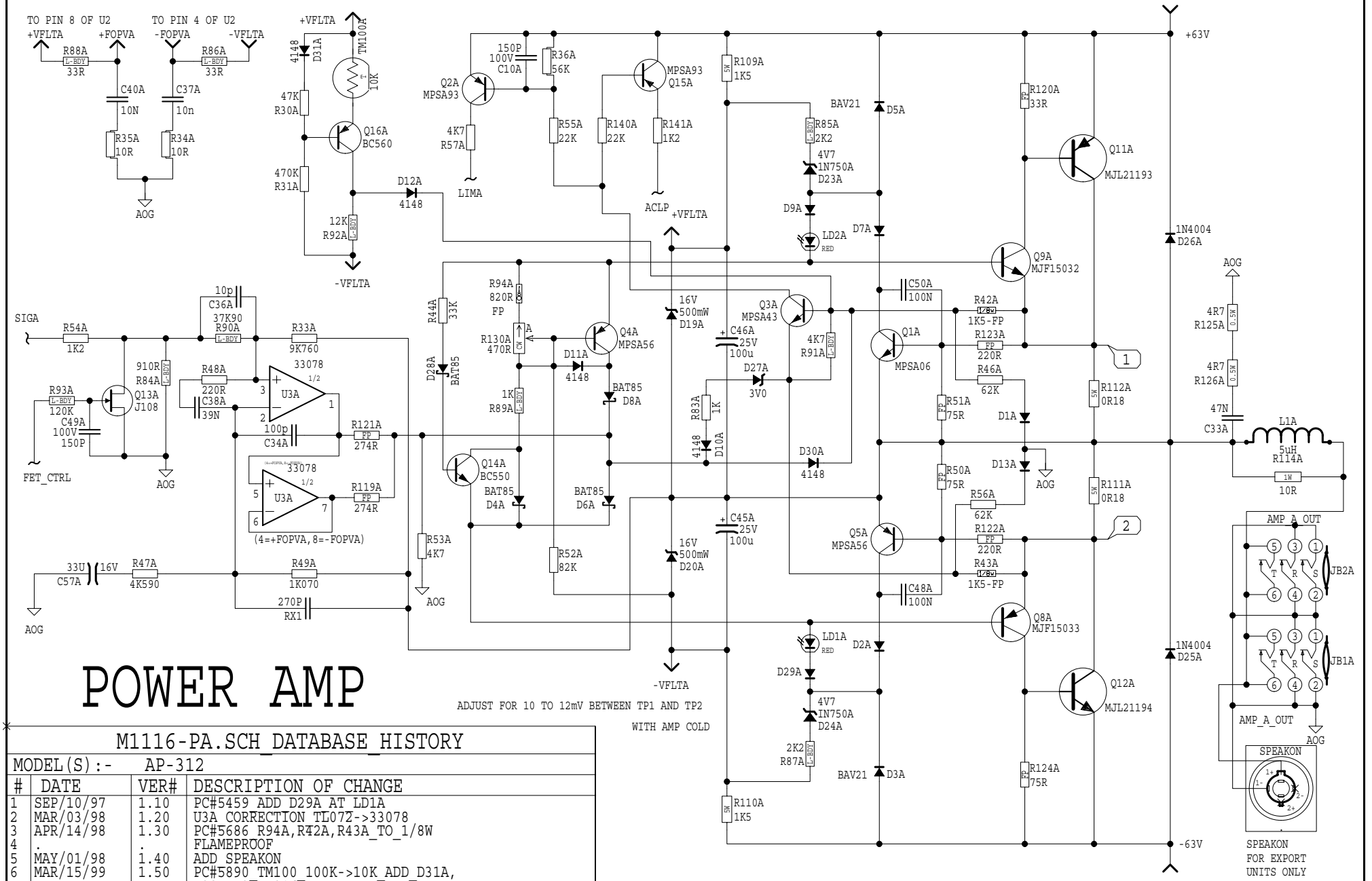
1 ADD COPPER FOIL ON I.C SOCKET OF U1FX ADD EXTRA SOLDER
2 ADD YELLOW WIRE NEXT TO U6
3 ADD .5" COPPER STRIP ON TOP OF P2 FOR N.A. AND EXPO
4 ADD 1" COPPER STRIP ON BOTTOM OF U1FX FOR EXPORT
5 J152,J155,J156,J159 ARE USED AS RIBBON CABLE CLAMPS
6 J103 IS HAND INSERTED
7 YEL AND PURPLE WIRES FROM WC1 AND WC2 MUST GO BEHIND P6
8 R5FX MUST BE A MINI PT#4981



PUSH C5H AWAY BEFORE INSTALLING XLR

Wave Solder

VCD



POWER AMP

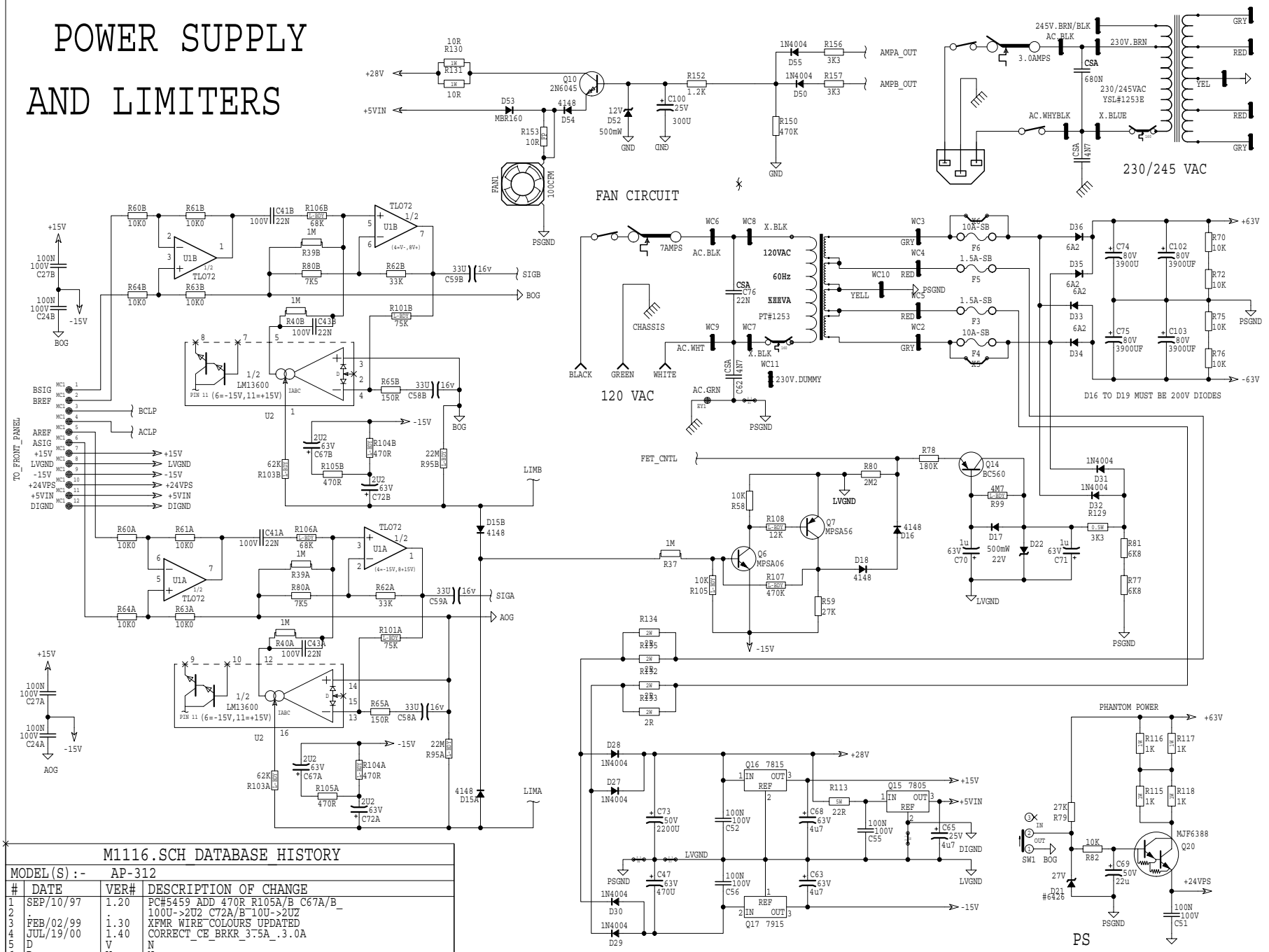
M1116-PA.SCH_DATABASE_HISTORY

MODEL(S):- AP-312

#	DATE	VER#	DESCRIPTION OF CHANGE
1	SEP/10/97	1.10	PC#5459 ADD D29A AT LD1A
2	MAR/03/98	1.20	U3A CORRECTION TL072->33078
3	APR/14/98	1.30	PC#5686 R94A,R42A,R43A TO 1/8W FLAMEPROOF
4	.	.	
5	MAY/01/98	1.40	ADD SPEAKON
6	MAR/15/99	1.50	PC#5890 TM100 100K->10K ADD D31A, R30A,R31A,Q16A
7	.	.	
8	JUL/18/00	1.60	PC#6273 R48A 1K->220R C38A 15N->39N
9	D	V	N
10	D	V	N

YORKVILLE	DATE: JUL/18/00	MODELS: AP-312	SHEET 7OF 7	SCH ISSUE: 1.60
	NAME: M1116-PA	PCB#&VER: M1116	TITLE: POWER_AMP	

POWER SUPPLY AND LIMITERS

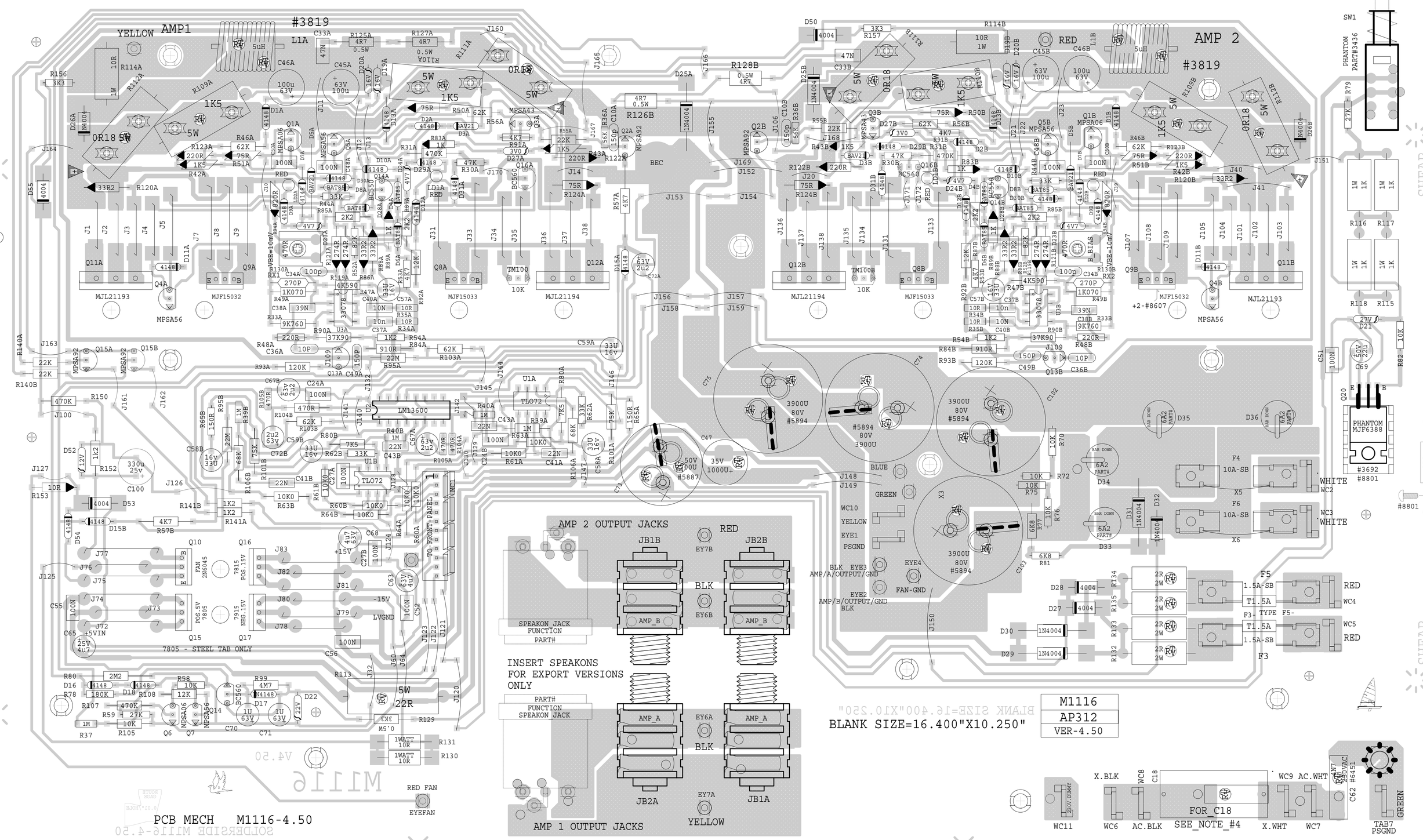


M1116.SCH DATABASE HISTORY

MODEL(S):- AP-312

#	DATE	VER#	DESCRIPTION OF CHANGE
1	SEP/10/97	1.20	PC#5459 ADD 470R R105A/B C67A/B_
2	.	.	100U->2U2 C72A/B 10U->2U2
3	FEB/02/99	1.30	XFMR WIRE COLOURS UPDATED
4	JUL/19/00	1.40	CORRECT_CE_BRKR_3.5A_.3.0A
5	D	V	N
6	D	V	N
7	D	V	N
8	D	V	N
9	D	V	N
10	D	V	N

YORKVILLE	DATE: JUL/19/00	MODELS: AP-312	SHEET 6OF 7	SCH ISSUE: 1.40
	NAME: M1116-PS	PCB#&VER: M1116	TITLE: LIMITER_&_PS	



M1116.PCB_DATABASE_HISTORY

MODEL(S):- AP312

#	DATE	VER#	DESCRIPTION OF CHANGE
1	SEP/02/97	2.00	PC#XXXX SPKONS ADDED
2	SEP/09/97	2.00	PC#5459 C67A/B C72A/B ->2U2 R104A/B
3	.	.	4K7->47OR ADD 470R (RI05A/B ADD
4	.	.	D29A/B AT LD1A/B
5	APR/14/98	3.00	PC#5686 R94A,R94B,R42A,R42B,R43A,
6	.	.	R43B TO 1/8W FLAMEPROOF
7	MAR/15/99	4.00	PC#5890 TM100 100K->10K ADD R30A/B
8	.	.	R31A/B Q16A/B D31A/B
9	MAR/25/99	.	PC#595I C47 470u->1000u
10	JAN/24/00	.	PC#5775 MOVE C50A/B FROM LD2A/B
11	.	.	PC#6133 MOVE C38A AWAY FROM R49A/
12	.	.	PC#5916 RX2 VALUE CONFIRMEDT270P)
13	JUL/17/00	4.10	MOVE TRACE AWAY FROM PAD ADD
14	.	.	SHEAR ON SIDE
15	JUL/18/00	4.20	PC#6273 R48B 1K->220R C38B 15N->39N
16	SEP/18/00	4.30	PC#6206 1 EYELET REMOVED FOR SPKONS
17	MAR/23/01	4.40	PC#6363 R83A/B R89A/B TO FLAMEPROOF
18	SEP/05/03	4.50	PC#6621 MPSA93->MPSA92
19	D	V	N
20	D	V	N
21	D	V	N
22	D	V	N
23	D	V	N
24	D	V	N
25	D	V	N
26	D	V	N
27	D	V	N
28	D	V	N
29	D	V	N
30	D	V	N
31	D	V	N
32	D	V	N
33	D	V	N
34	D	V	N
35	D	V	N
36	D	V	N
37	D	V	N
38	D	V	N
39	D	V	N
40	D	V	N
41	D	V	N
42	D	V	N
43	D	V	N
44	D	V	N
45	D	V	N
46	D	V	N
47	D	V	N
48	D	V	N
49	D	V	N
50	D	V	N

PRODUCTION NOTES

AUTO-INSERTION

BOARD-ASSEMBLY

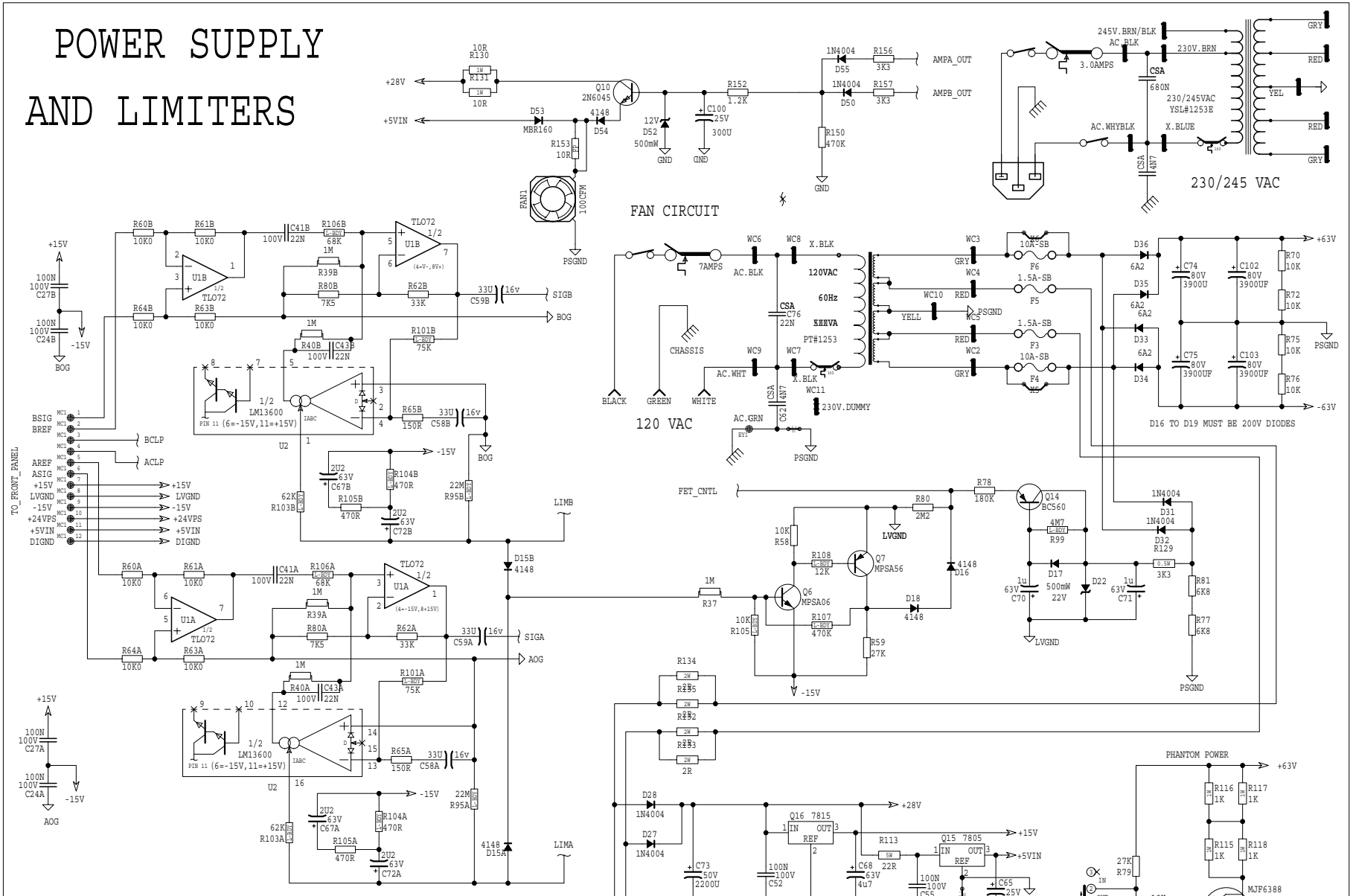
1. MOUNT MJE15032 AND '33 TRANSISTORS WITH #8607 SPACERS ON TWO LEADS Q8A,Q8B,Q9A,Q9B
2. Q15 7805 REGULATOR MUST BE STEEL TAB VERSION ONLY.
3. NO FUSE HOLDERS SHOULD BE STUFFED. F3&5 ARE REPLACED WITH AUTO-INSERT FUSES, F4&6 WITH JUMPERS.
4. FOR NORTH AMERICAN C18 IS 22N, AND 680N FOR EUROPEAN.
5. INSERT SPEAKONS FOR EXPORT VERSIONS ONLY
6. HAND INSERT AS SHOWN R42A/B,R43A,R83A/B,R89A/B

Q9A/B
Q8A/B

#8607 SPACER

B C E

POWER SUPPLY AND LIMITERS

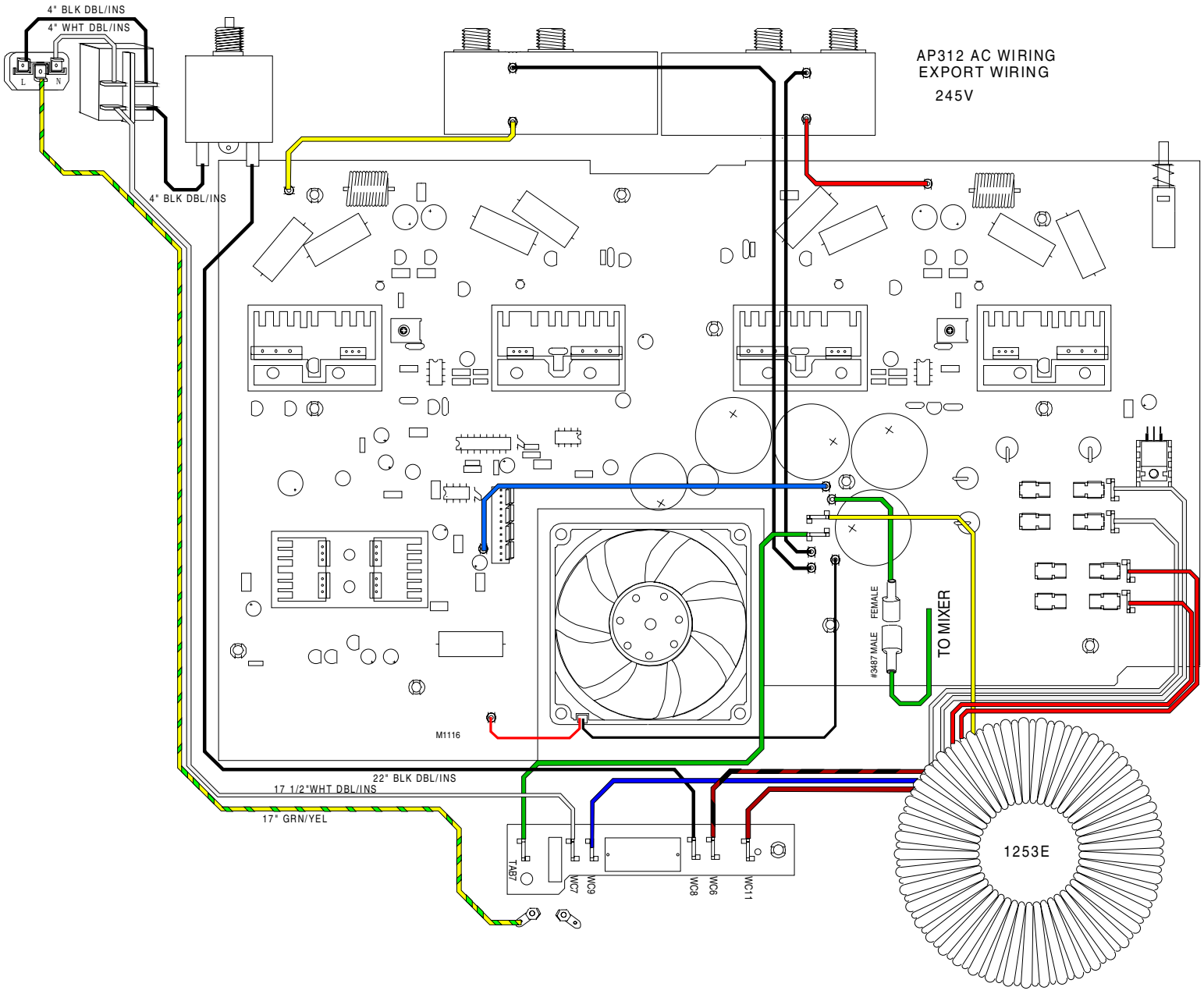


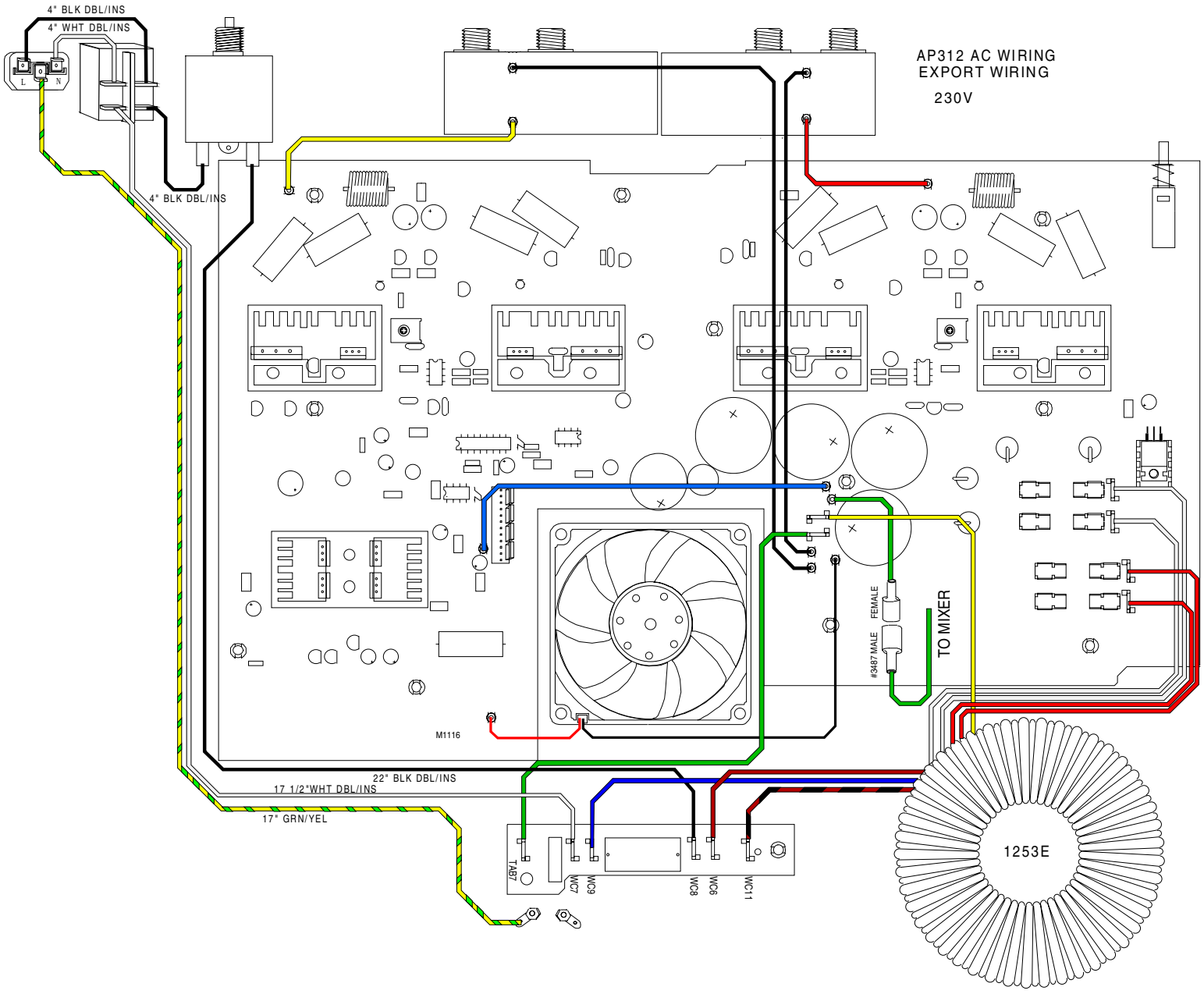
M1116.SCH DATABASE HISTORY

MODEL(S):- AP-312

#	DATE	VER#	DESCRIPTION OF CHANGE
1	SEP/10/97	1.20	PC#5459 ADD 470R R105A/B C67A/B_
2	.	.	100U->2U2 C72A/B 10U->2U2
3	FEB/02/99	1.30	XFMR WIRE COLOURS UPDATED
4	JUL/19/00	1.40	CORRECT_CE_BRKR_3.5A_.3.0A
5	D	V	N
6	D	V	N
7	D	V	N
8	D	V	N
9	D	V	N
10	D	V	N

YORKVILLE	DATE: JUL/19/00	MODELS: AP-312	SHEET 6OF 7	SCH ISSUE: 1.40
	NAME: M1116-PS	PCB#&VER: M1116		TITLE: LIMITER_&_PS


AP312 AC WIRING
EXPORT WIRING
245V
4" BLK DBL/INS
4" WHT DBL/INS
L
N
4" BLK DBL/INS
TO MIXER
FEMALE
#3487 MALE
M1116
22" BLK DBL/INS
17 1/2"WHT DBL/INS
17" GRN/YEL
TAB7
WC7
WC9
WC8
WC6
WC11
1253E


AP312 AC WIRING
EXPORT WIRING
230V
4" BLK DBL/INS
4" WHT DBL/INS
L
N
4" BLK DBL/INS
FEMALE
#3487 MALE
TO MIXER
M1116
22" BLK DBL/INS
17 1/2"WHT DBL/INS
17" GRN/YEL
TAB7
WC7
WC9
WC8
WC6
WC11
1253E

YORKVILLE	DATE: FEB/9/97	MODELS: AP-312/AP-812\AP-818	SCH ISSUE: 1.10
	NAME: M1101FX.SCH	PCB#&VER: M1101	TITLE: DIGITAL_EFFECTS

DIGITAL EFFECTS SECTION

APPROVALS	DATE
DRAWN: R.NEATROUR	2-16-94
ENGINEERING:	
REVISED: A. CHILCO	1995/06/05
CHECKED:	
ISSUED:	
PLOT DATE: 12-1-94	

APPLIED RESEARCH & TECHNOLOGY
215 TREMONT STREET
ROCHESTER, NY 14608

ART OEM REVERB BOARD

SIZE: A | DWG NO: 400-4001-100 | REV:
FILENAME: M1101-FX | SHEET: 4 OF 4